

## FLIP CHIP C4 EXTENSION STRUCTURE AND PROCESS

### Abstract of the Disclosure

An electrical structure, and associated method of fabrication, for reducing thermally induced strain in a structure that couples a first conductive body of a first substrate to a second conductive body of a second substrate (e.g., a chip to a chip carrier; 5 a chip carrier to a circuit card). The melting point of the first conductive body exceeds the melting point of the second conductive body. The second conductive body may include eutectic lead-tin alloy, while the first conductive body may include non-eutectic lead-tin alloy. A portion of the first conductive body is coated with, or volumetrically 10 surrounded by, a material that is nonsolderable and nonconductive. The first and second conductive bodies are coupled mechanically and electrically by surface adhesion at an uncoated portion of the first conductive body, by application of a temperature that lies between the melting points of the first and second conductive bodies.